

CLIMATOLOGICAL CONGRESS AT THE DAVOS INSTITUTE

GENERAL

Dr. Carrière, Berne: The relationship between the various climates of Switzerland and the health of the population.

Prof. Dietrich, Berlin: The importance of climatology and climate research in relation to the national health.

Prof. Hellpach, Karlsruhe: The psychological influence of Alpine surroundings.

Dr. King Brown, London: Climate of a big city and the dwellings of the poor.

Prof. Levi, Rome: The problems of preventive medicine and their international development.

Dr. Wehrli, Zurich: History of climatic treatment.

PHYSICAL-METEOROLOGICAL SECTION

Prof. Besson, Paris: Subject to be announced later.

Prof. Dorno, Davos: The climatology of the high mountains.

Prof. Hellmann, Berlin: Climatic extremes on the earth.

Prof. Kassner, Berlin: Hygrometric conditions of the air on the island of Heligoland.

Prof. Linke, Frankfurt: Atmospheric opacity as an element of climate.

Prof. Maurer and Lutschg, Zurich: Measurements of evaporation from open water-surfaces in the Alps.

Prof. Dr. Mercanton, Lausanne: Glacier studies in Switzerland.

Prof. Edgar Meyer, Zurich: The significance of the ozone content of the atmosphere in relation to solar radiation.

Prof. Palazzo, Rome: Studies in atmospheric electricity and radiation at the mountain observatory in Sestola (Appennines).

Dr. Pollak, Prague: Demonstration of his pyrheliometer.

Prof. Wigand, Halle: Atmospheric electricity in the open air.

BIOLOGICAL SECTION

1. PHYSIOLOGY

Prof. Abderhalden, Halle: Subject to be announced later.

Prof. Asher, Berne: On the conditions of blood formation and of the metabolism of iron.

Prof. Baglioni, Rome: Influence of climate on the central function and the organs of the higher senses.

Prof. Sophus Bang, Copenhagen: On the employment of a biological reaction for estimating climatic intensity of light.

Prof. Biedl, Prague: The relationship of climate to the glands of internal secretion.

Prof. Bürker, Giessen: The blood in the Alpine climate.

Dr. Cuomo, Capri: The Gulf of Naples, the character and therapeutic value of its climate.

Dr. v. Fellenberg, Berne: Iodine and environment.

Prof. Haecker, Halle: Climate and animal pigmentation.

Dr. Hediger, St. Moritz: The climate of the high mountains and arterial tone.

Prof. Hess, Zurich: Climate and sleep.

Prof. Baron v. Koranyi, Budapest: The physico-chemical influence of climate.

Dr. Laquer, Nymwegen: Climate and metabolism in general.

Prof. Loewy, Davos: The causes of the physiological effects of Alpine climate.

Dr. Mol, s'Gravenhage: On the marine climate of Holland.

Prof. Morpurgo, Turin: On adaptation to climate and to work on the high mountains during the period of senile involution.

Dr. van Oordt, Buhlerhohe: Climatology and climatology of the sub-Alpine region.

Dr. v. Schroetter, Vienna: Immunity in respect to the high-mountain climate.

2. BOTANY

Dr. v. Morton, Vienna: The climate of Alpine caves and their plant life.

Dr. Schibler, Davos: The flora of the Landwasser Valley of Davos as an indication of its climate.

Prof. Senn, Bale: Influence of light and temperature in the Alps on the anatomy and physiology of plants.

CLINICAL SECTION

Prof. von Bergmann, Frankfurt: Contribution to the diagnosis of the activity of pulmonary tuberculosis with respect to climatic influences.

Dr. Bernhard, St. Moritz: Heliotherapy in surgical diseases.

Prof. L. Blum, Strasburg: Alpine climate and maladies of nutrition.

Prof. Feer, Zurich: Climate and the diseases of children.

Prof. Ferrata, Pavia: Influence of the various climates on disorders of the blood.

Sir Henry Gauvain, London: A comparison of the effects of inland and marine treatment in the cure of surgical tuberculosis.

Prof. Gigon, Bale: Climate and pathological metabolism.

Prof. Hausmann, Vienna: Light and disease, with observations on the organization of biological researches in regard to light.

Prof. Leonard Hill, London: Influence of sunshine and open air on health.

Prof. His, Berlin: Constitution and climate.

Dr. Kalatz, Prosnitz: Subject to be announced later.

Prof. Kraus, Berlin: Climate and vegetative system.

Prof. Löffler, Zurich: Renal diseases and climate.

Prof. Michaud, Lausanne: Climate and heart disease.

Dr. Ruppanner, Samaden: Climate and thyroidism.

Dr. Smiles, London: Physical considerations in photo-therapy.

Prof. Sonne, Copenhagen: Physiological and therapeutical action of artificial light.

Prof. Staehlin, Bale: Non-tuberculous diseases of the respiratory organs in the Alpine climate.

Prof. Stepp, Jena: Effect of sunlight on bone formation.

Prof. v. d. Velden, Berlin: Value of climatic treatment in convalescence.

Prof. Veraguth, Zurich: Climate and nervous diseases.

Dr. Young, London: Subject to be announced later.

Prof. Zoja, Milan: Blood quantity and altitude.

LOOMING AND MULTIPLE HORIZONS

On looking out to sea on a clear day one expects to see an apparently straight line marking the horizon. It was rather surprising then on June 17, 1925, when looking seaward from Hampton Beach, Mass., to observe a sea horizon that was decidedly humped up in one direction (ESE.) and double to treble in another (NE.). The smoke of a steamer out of sight rose from beyond the loomed horizon. A schooner sailed on the lower of the compound horizons further round to the north. The Isles of Shoals looked like a city of skyscrapers of uniform height. To the east and southeast the loomed-up horizon was dominant, from east to northeast the normal (?) horizon was surmounted by the one or two extra horizon lines. The loomed horizon joined with the other farther and farther northward in the course of the hour from 10 to 11 a. m. The extending upper line of the loomed horizon became visible first in rather regularly spaced spots (marking air waves?) which developed columnar connections with the lower sea level as the top line became continuous. A rough angular measurement indicated the looming to be about eight minutes of arc.

Over the ocean there was the normal cool cushion of air, represented by the moderate sea breeze at 59° F. blowing in from the ocean (shore water 54.5° F.), over which was beginning to run a warm southwesterly wind, which became strong by mid-afternoon at points a few miles inland.—C. F. Brooks.

DROUGHT AND FLOOD IN MEXICO

The prolonged drought which with some slight interruptions has been seriously affecting the southwestern United States and northern Mexico during the past year, reached such serious proportions late in May in northern Mexico that cattle throughout the State of Chihuahua were dying of thirst and starvation, and the staple food crops were seriously threatened. The United States Consul at Chihuahua reports that city being put on a limited water supply. There was much suffering among the inhabitants of western Chihuahua, the mountain streams and other sources of water having gone completely dry. Lago Bustillos, one of the largest lakes, was dry for the first time, it is said, in the history of the State.

Planting of corn and beans, the staff of life of most of the people, had been put off in the hope of rain, which is usually adequate for planting before the onset of the rainy season proper about July 1.

Then came a three-day rain, described as being, for that region, "most extraordinary." It was estimated that more than an inch fell, enough to practically assure successful planting—but enough also to damage the wheat crop to some extent in parts of Chihuahua.

Newspaper clippings indicate that this downpour was followed in southern Mexico on the 6th and 7th of June by wind and rain storms which in Mexico City caused the collapse of many houses in the poorer districts, and which in the Isthmus of Tehuantepec brought serious floods. In the latter region more than 100 lives were reported lost. Several small villages were wiped out. The cities of Juchitlan and Tehuantepec were reported "almost submerged." Damage to railroad property was extreme; the track of the Tehuantepec Railway for many kilometers was destroyed; a freight train was swept "four miles from its track" by the rush of waters. Telegraphic communication was suspended.

One favorable result of the rains was the extinguishing of fires in the turpentine forests near Nexaca.—B. M. V.

TORNADOES IN IOWA DURING JUNE, 1925

The following table is taken from a detailed report submitted by Mr. Arthur H. Christensen, Weather Bureau office, Des Moines, Iowa.

Iowa Tornadoes during June, 1925

Nearest towns	Date	Time	Direction of movement	Length of path	Persons killed	Persons injured	Estimated damage
I. Milford.....	1	P. m.	SW. to NE.	Short	0	0
II. Glenwood and Silver City.	2	4 p. m. to 5 p. m.	SW. to NE.	45 miles...	0	4	\$50,000
III. Onawa, Monona County, to Cushing, Woodbury County.	2	4 p. m. to 5 p. m.	SW. to NE.	46 miles...	0	4	480,000
IV. Red Oak, Montgomery County.	2	6:10 p. m.	SW. to NE.	11 miles...	0	5	100,000
V. Adair, Adair County.	2	8:30 p. m.	SW. to NE.	20 miles...	3	3	100,000
VI. Northwest part of Iowa County.	2	10:15 p. m.	SW. to NE.	Short	0	0
VII. Neola, Pottawattamie County.	3	5:30 p. m.	SW. to NE.	5 miles....	0	0	750,000
VIII. Neola and Persia.	3	6 p. m.	S. to N.	10 miles...	1	21	
IX. Jefferson, Greene County.	3	9 p. m.	SW. to NE.	15 miles...	0	1	10,000
X. Alexander, Franklin County.	11	4 p. m. to 4:45 p. m.	SW. to NE.	15 miles...	1	18	350,000
XI. Dumont, Butler County.	11	4:30 p. m.	SW. to NE.	1 mile	0	0	150,000
XII. Greene, Butler County.	11	5 p. m.	SW. to NE.	2 miles....	0	0	
XIII. Carrville, Floyd County.	11	6:30 p. m.	SW. to NE.	¼ mile....	0	0	
XIV. Nashua, Chickasaw County.	11	6:30 p. m.	SW. to NE.	Short	0	0	10,000
XV. Tabor, Fremont County.	28	2 a. m.	NW. to SE.	6 miles....	0	0	
Total				170 miles..	5	56	2,000,000

INTENSE RAINSTORM OF JULY 3, 1925, DUBUQUE, IOWA

Mr. H. Merrill Wills, in charge of the Weather Bureau station at Dubuque, reports that during the evening of July 3, 1925, the city was visited by a rainstorm of unusual intensity, the second of the sort within 19 days

following nine consecutive months of deficient precipitation. The total rainfall of this second storm was 3.47 inches (3.19 inches having been recorded in the first, during the night of June 14-15). The greatest falls within limited periods were: 5 minutes, 0.46 inch; 10 minutes, 0.81 inch; 15 minutes, 1.12 inches; 30 minutes, 1.86 inches; 1 hour, 2.29 inches; 2 hours, 3.22 inches.

Including the two storms just passed, 25 have brought precipitation exceeding 3 inches in 24 hours at Dubuque since 1874, or an average of one every two years.

The depressions along the wind-shift lines of which the two recent storms took place were of no unusual intensity. On July 3, occurred a maximum temperature of 96° at 2:30 p. m., the wind having been previous to that time SW., but shifting then to NW. and W., whence at about 5 p. m. it returned to SW. with the beginning of the rain, and so continued through most of the storm, reaching a maximum velocity of 37 miles per hour. The temperature dropped from 94° at 4:50 p. m. to 69° at 6 p. m.

Typical accompaniments of a severe thunderstorm are noted in the report: In this case the killing of two persons and injury of another; extensive damage to trees, gardens, telephone and other wire systems; flooding of sewers, streets, and basements. The estimate of total property damage is \$50,000.

[With reference to the maximum recorded wind velocity, the question may be raised as to whether the Weather Bureau anemometer was located in the path of greatest wind force in this storm. In another part of the city a portion of the roof of a wagon factory was blown off and a side wall blown in; this, together with the destruction of large trees, indicates a degree of damage incommensurate with a wind velocity of only 37 miles per hour. This velocity is that of a "high wind," force 7, on the Beaufort scale, for which the specification is: "Whole trees in motion; inconvenience felt when walking against wind." For the specification which seems to describe this storm, namely, "trees uprooted; considerable structural damage occurs," the wind is a whole gale, force 10, velocity 55-63 miles per hour.]—B. M. V.

INCIPIENT TORNADO IN IDAHO

F. P. HOLT

Mr. Fred P. Holt, a former employee of the United State Weather Bureau, supplies us with the following particulars of a phenomenon observed by him in southeastern Idaho on July 4, 1925. It was evidently a tornado in the making; its failure to develop into a destructive whirl must be ascribed to the unfavorable atmospheric conditions near the surface of the ground:

About noon I observed a typical tornado which did not reach destructive proportions. A thunderstorm was approaching from the south, following the Portneuf River Valley, and a horizontal stratum of cloud at an estimated elevation of about 1,500 feet was accompanying the approaching storm. My attention was attracted to a small suspended mass of cloud which quickly assumed the form of an inverted cone. This cone rapidly became longer and more slender and the lower extremity swung irregularly from side to side from the vertical. As the storm approached, the rapid rotary spiral motion was distinctly observed with a very rapid vertical motion.

At its maximum development, I estimate the column to have been 500 to 800 feet long. At no time did it extend more than halfway from the cloud stratum to the valley floor.

From the maximum development above described, the swaying trunk gradually became shorter and shorter and my last observation was of a small agitation on the under surface of the cloud stratum. * * *